

Notice of Allowability

Application No.

09/691,004

Examiner

Johannes P. Mondt

Applicant(s)

FORBES ET AL.

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed January 3, 2005.
2. ☒ The allowed claim(s) is/are 36-39, 59-61, 71-85, 98 and 99.
3. ☒ The drawings filed on 18 October 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 01/03/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Response to Amendment

Amendment filed January 3, 2005 forms the basis of this office action. In said Amendment Applicant substantially amended claims 71, 74, 77 and 80 (and claims dependent thereon). Said Amendment overcomes the rejections of claims 71-82 while all other non-allowable claims have been cancelled.

REASONS FOR ALLOWANCE

Claims 36-39, 59-61, 71-85, 98 and 99 are allowed.

1. The following is an examiner's statement of reasons for allowance:

(a) With regard to claims 36, 38, 39 and 98: within the context of the transistor otherwise defined by claim 36, neither Halvis et al nor Chiang et al nor any other reference previously cited, teach the stoichiometry parameter x to be substantially greater than 0.5. No other prior art has come to light in this regard.

(b) With regard to claims 37 and 99: within the context of the transistor otherwise defined by claim 37, neither Weitzel, Halvis et al nor Chiang et al, nor any other reference previously cited, teach the stoichiometry parameter x to be greater than 0.6. No other prior art has come to light in this regard.

(c) With regard to claims 59-61: within the context of the transistor otherwise defined by claim 59, neither Halvis et al nor Chiang et al nor any other reference previously cited, teach the stoichiometry parameter x to be selected between 0.75 and 1.0. No other prior art has come to light in this regard.

(d) With regard to claims 71-73: within the context of the transistor otherwise defined by claim 71, neither Aoyama et al nor any other prior art previously cited teach the stoichiometry parameter x to be selected between 0.6 and 1.0;

(e) With regard to claims 74-76: within the context of the transistor otherwise defined by claim 74, neither Aoyama et al nor any other prior art previously cited teach the stoichiometry parameter x to be selected between 0.1 and 0.4;

(f) With regard to claims 77-79: within the context of the transistor otherwise defined by claim 77, neither Aoyama et al nor any other prior art previously cited teach the stoichiometry parameter x to be selected between 0.1 and 0.4;

(g) With regard to claims 80-82: within the context of the transistor otherwise defined by claim 77, neither Aoyama et al nor any other prior art previously cited teach the stoichiometry parameter x to be selected between 0.6 and 0.75;

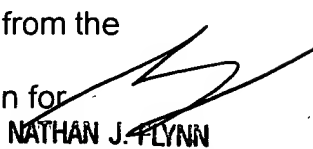
(h) With regard to claims 83-85: a floating gate transistor with source, drain, channel and gate insulator with floating gate and control gate is in the prior art (Nakamura et al, loc.cit.). However, the limitation that the floating gate material comprises a silicon carbide compound $\text{Si}_{1-x}\text{C}_x$ wherein x is selected between 0.75 and 1.0 has not been found (the closest value for the stoichiometric parameter x found in the prior art was a limit point of 0.5). None of the previously cited references teach said limitation. No other prior art has come to light in this regard.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P. Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or  NATHAN J. FLYNN
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2800
Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
March 11, 2005